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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/574,721	11/29/2006	Ewald Schneider	1-17295	1917
1678 7590 05/25/2010 MARSHALL & MELHORN, LLC FOUR SEAGATE - EIGHTH FLOOR TOLEDO, OH 43604			EXAMINER LEE, DORIS L	
			ART UNIT 1796	PAPER NUMBER
			MAIL DATE 05/25/2010	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/574,721	SCHNEIDER, EWALD	
	<b>Examiner</b>	<b>Art Unit</b>	
	Doris L. Lee	1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 28 April 2010.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 11, 13, 17 and 19-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 11, 13, 17 and 19-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)         | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. The new grounds of rejection set forth below are necessitated by applicant's amendment filed on April 28, 2010. In particular, claim 21 which is newly added and not present at the time of the previous office action. Thus, the following action is properly made final.

#### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. **Claim 21** is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

**Regarding claim 21**, the limitation "wherein said additives do not include phenolic resins" is rejected as new matter because negative limitations must have basis in the original disclosure. The mere absence of a positive recitation is not a basis for an exclusion, please refer to MPEP 2173.05(i), most notably the 2nd paragraph in this section. Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 103***

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4. **Claims 11, 13, 17 and 19-20** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Saga (US 2005/0113496)** in view of **Sugino et al (US 5,895,607)** and **Schmid et al (US 4,963,610)**.

The rejection is adequately set forth in paragraph 2 of the Office Action mailed on January 28, 2010 and is incorporated here by reference.

5. **Claim 21** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Schlosser et al (US 6,547,992)** in view of **Sicken et al (EP 584576, please refer to US 5,326,805 for the English language equivalent)**, **Sugino et al (US 5,895,607)** and **Saga et al (US 2005/0113496)**.

**Regarding claim 21**, Schlosser teaches a polyamide composition (col. 4, line 13) which comprises:

- 1 to 30 % (col. 6, lines 1-10) by weight of a phosphinate or diphosphinate flame retardant with a structure as presently claimed (Abstract)
- 0.1 to 10% by weight (col. 4, lines 5-7) of a particle like filler such as glass powders, glass-ceramic powders or ceramic powders (col. 4, lines 30-35)
- and other additives such as light stabilizers, lubricants or colorants (col. 6, lines 60-65)

Schlosser fails to teach the a) amount of the other additives and also b) the mixture of aliphatic and semi-aromatic polyamides and c) the type of semi-aromatic polyamide.

Regarding a), Sicken teaches that that amount of lubricants and colorants ranges from 1 to 80% by weight (col. 8, lines 20-25).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to use the amount of additives as taught by Sicken. One would have been motivated to do so because Schlosser explicitly teaches and refers one to the Sicken document regarding the additives (Schlosser, col. 6, lines 63-64).

Given that other than the polymer, the only ingredients in the composition based on the teachings of the Schlosser and Sicken are the phosphinate flame retardant, particle filler and additive, the total amount of polymer can be calculated to range from above 0 to 97.9 % by weight of polyamide.

Regarding b) above, Sugino teaches a mixture of a semi-aromatic polyamide and an aliphatic in a weight ratio of 10:90 to 90:10 (Abstract).

It would have been obvious to use a mixture of semi-aromatic and aliphatic polyamides as taught by Sugino as the polyamide of modified Schlosser. One would have been motivated to do so in order to balance the rigidity and the impact resistance of the polymeric composition (Sugino, col. 3, line 60 - col. 4, lines 5). They are combinable because they are concerned with the same field of endeavor, namely polyamide compositions.

Regarding c) above, it is noted that Sugino teaches that the semi aromatic polymer can be made from many types of diamines and dicarboxylic acids and is not particularly limited (col. 4, lines 5-10), and gives examples such hexamethylene diamine (col. 4, line 17) and adipic acid (col. 4, lines 17). However, it fails to teach the addition of terephthalic acid and isophthalic acid.

Saga teaches that adipic acid and other acids such as terephthalic acid and isophthalic acid ([0016]) are equivalent in regards to polyamide synthesis.

In view of Saga's recognition that adipic acid and terephthalic acid and isophthalic acid are equivalent and interchangeable, it would have been obvious to one of ordinary skill in the art to substitute one with the other and thereby arrive at the present invention. Case law holds that the mere substitution of an equivalent (something equal in value or meaning, as taught by analogous prior art) is not an act of invention; where equivalency is known to the prior art, the substitution of one equivalent for another is not patentable. See *In re Ruff* 118 USPQ 343 (CCPA 1958).

### ***Response to Arguments***

6. Applicant's arguments filed April 28, 2010 have been fully considered but they are not persuasive.

7. **Applicant's argument:** The use of Saga as a primary reference is not appropriate given the presence of the phenolic resin which is required by the Saga.

**Examiner's response:** *The presence of the phenolic resin of Saga is part of the composition of Saga, but can be present in an amount which overlaps with the range of the additive portion of the claimed invention. Applicant has acknowledged that the phenolic resin is a char former (page 10, 2nd paragraph of arguments) and as such has indicated that Saga teaches that the phenolic resin is indeed a stabilizer as a char former stabilizes the polymeric composition from further degradation due to burning as it produces a layer of char which inhibits the flammability of the composition.*

8. **Applicant's argument:** Nothing in Schmid has to do with aliphatic and aromatic polyamides and it requires 40-70 wt % of magnesium hydroxide.

**Examiner's response:** *Schmid is used only to teach in the requisite amounts of additives generally present in polyamide materials. That both Schmid and Saga are both in the same field of endeavor, namely polyamides lends it to teaching the general amounts of pigments and stabilizers typically used in polyamide compositions. As to the required magnesium hydroxide, it is noted that Schmid is used only for it's teaching of pigments and stabilizers and that other teachings in the Schmid references such as the amount of magnesium hydroxide is not germane to the claims at hand as it is the combination of references which render the presently claimed invention obvious to a person of ordinary skill in the art at the time of the invention.*

### **Conclusion**

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Doris L. Lee whose telephone number is (571)270-3872. The examiner can normally be reached on Monday - Thursday 7:30 am to 5 pm and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571)272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Doris L Lee/  
Examiner, Art Unit 1796



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/Vasu Jagannathan/

Supervisory Patent Examiner, Art Unit 1796